4.2.D. 0511000208.

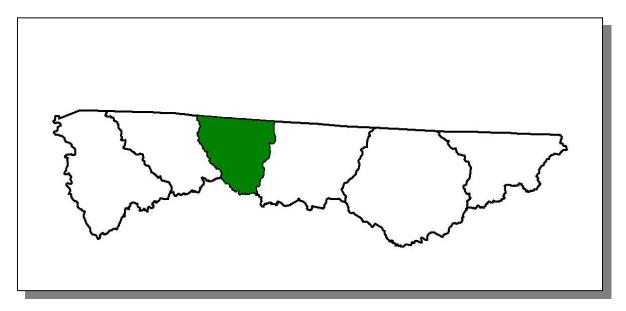


Figure 4-80. Location of Subwatershed 0511000208. All Barren River HUC-10 subwatershed boundaries are shown for reference.

4.2.D.i. 051100020801 Trammel Creek).

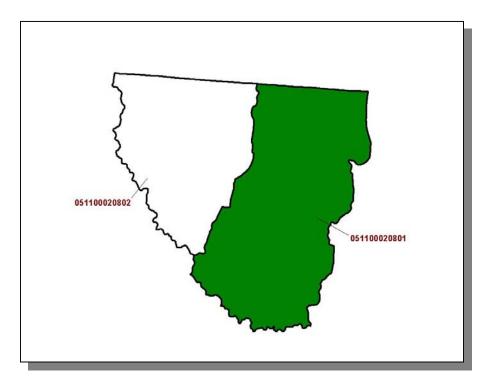


Figure 4-81. Location of Subwatershed 051100020801. All Barren River HUC-12 subwatershed boundaries are shown for reference.

DRAFT

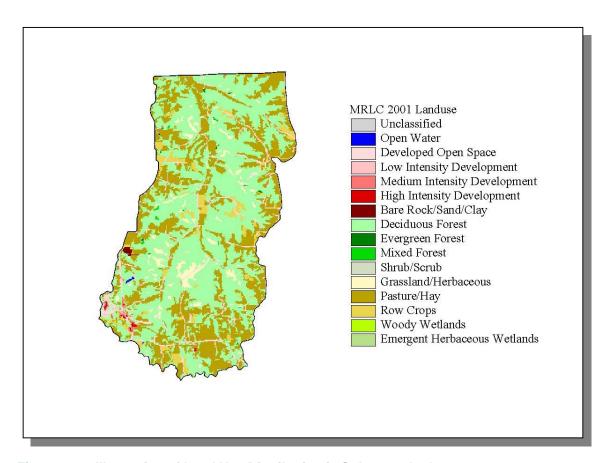


Figure 4-82. Illustration of Land Use Distribution in Subwatershed 051100020801.

DRAFT

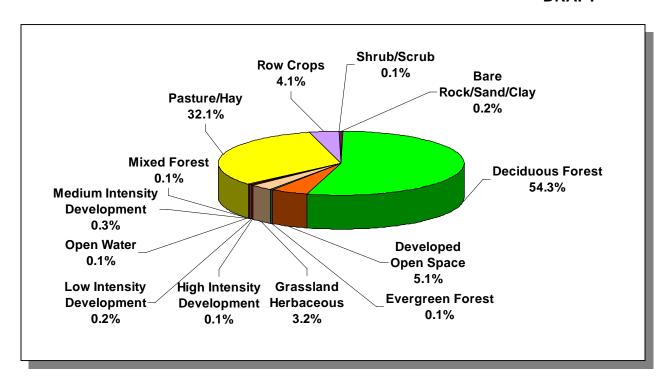


Figure 4-83. Land Use Distribution in Subwatershed 051100020801. More information is provided in Appendix IV.

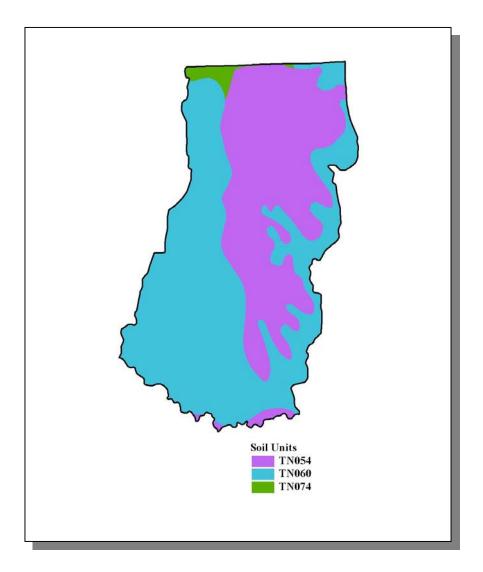


Figure 4-84. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051100020801.

| STATSGO | PERCENT | HYDROLOGIC | PERMEABILITY | SOIL | ESTIMATED | SOIL |
|-------------|---------|------------|--------------|------|--------------|-------------|
| MAP UNIT ID | HYDRIC | GROUP | (in/hour) | pН | SOIL TEXTURE | ERODIBILITY |
| TN054 | 0.00 | С | 3.04 | 4.84 | Loam | 0.32 |
| TN060 | 20.00 | В | 1.30 | 5.32 | Silty Loam | 0.39 |
| TN074 | 14.00 | В | 1.44 | 4.94 | Loam | 0.33 |

Table 4-69. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051100020801. The definition of "Hydrologic Group" is provided in Appendix IV.

91

| | COUNTY POPULATION | | | | | IATED PO N WATER | PULATION SHED | |
|--------|----------------------|---------|---------|--------------------------|-------|---------------------|------------------|-------------------------|
| County | 1990 | 1997 | 2000 | Portion of Watershed (%) | 1990 | 1997 | 2000 | % Change (1990-2000) |
| County | 1330 | 1337 | 2000 | valeranea (70) | 1330 | 1557 | 2000 | (1000 2000) |
| Macon | 15,906 | 17,854 | 20,386 | 5.68 | 903 | 1,014 | 1,157 | 28.1 |
| Sumner | 103,281 | 121,936 | 130,449 | 1.54 | 1,586 | 1,872 | 2,003 | 26.3 |
| Totals | 119,187 | 139,790 | 150,835 | | 2,489 | 2,886 | 3,160 | 27.0 |

Table 4-70. Population Estimates in Subwatershed 051100020801.

| | | | NUMBER OF HOUSING UNITS | | | | |
|-----------------|--------|------------|-------------------------|--------------|-------------|-------|--|
| Populated Place | County | Population | Total | Public Sewer | Septic Tank | Other | |
| | | | | | | | |
| Westmoreland | Sumner | 1,726 | 709 | 625 | 82 | 2 | |

Table 4-71. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051100020801.

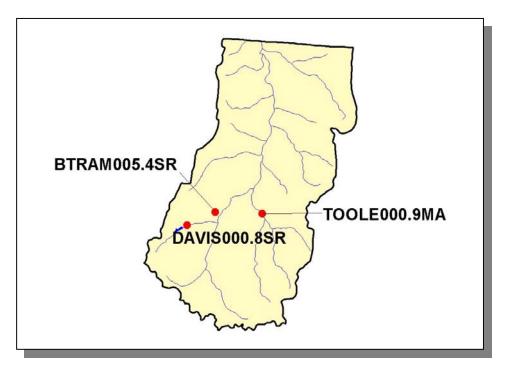


Figure 4-85. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051100020801. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.D.i.a. Point Source Contributions.

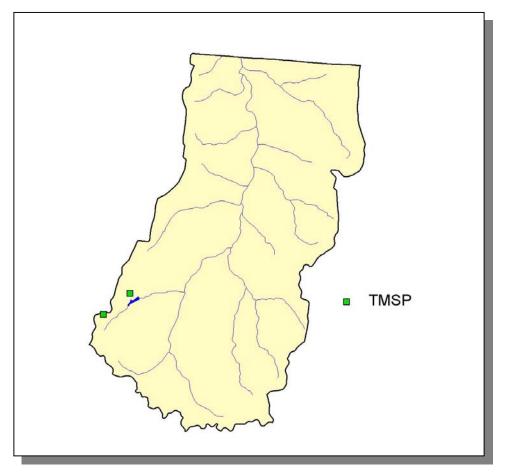


Figure 4-86. Location of Permits Issued in Subwatershed 051100020801. More information, including the names of facilities, is provided in Appendix IV.



Figure 4-87. Location of TMSP Sites in Subwatershed 051100020801. More information, including the names of facilities, is provided in Appendix IV.

4.2.D.i.b. Nonpoint Source Contributions.

| LIVESTOCK COUNTS | | | | | | |
|------------------|--------|----------|-------------------|------|-------|--|
| Beef Cow | Cattle | Milk Cow | Chickens (Layers) | Hogs | Sheep | |
| | | | | | | |
| 1,270 | 2,319 | 46 | <5 | 182 | 10 | |

Table 4-72. Summary of Livestock Count Estimates in Subwatershed 051100020801. According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

| LIVESTOCK COUNTS | | | | | | | |
|------------------|----------|--------|----------|-------------------|-------|-------|--|
| County | Beef Cow | Cattle | Milk Cow | Chickens (Layers) | Hogs | Sheep | |
| | | | | | | | |
| Macon | 15,039 | 26,098 | 318 | 675 | 2,377 | 111 | |
| Sumner | 22,296 | 45,116 | 1,515 | 50 | 2,500 | 189 | |

Table 4-73. Summary of Livestock Count Estimates in Macon and Sumner Counties. According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

| | INVEN | ITORY | REMOVAL RATE | | |
|--------|------------------|------------------|----------------------|----------------------|--|
| | Forest Land | Timber Land | Growing Stock | Sawtimber | |
| County | (thousand acres) | (thousand acres) | (million cubic feet) | (million board feet) | |
| | | | | | |
| Sumner | 88.2 | 88.2 | 2.0 | 6.3 | |
| Macon | | | | | |

Table 4-74. Forest Acreage and Annual Removal Rates (1987-1994) in Sumner and Macon Counties.

| CROPS | TONS/ACRE/YEAR |
|---------------------------------------|----------------|
| Legumes (Pastureland) | 0.07 |
| Grass (Pastureland) | 0.44 |
| Grass (Hayland) | 0.24 |
| Legumes (Hayland) | 0.13 |
| Legumes, Grass (Hayland) | 0.17 |
| Grass, Forbs, Legumes (Mixed Pasture) | 0.87 |
| Corn (Row Crops) | 6.70 |
| Soybeans (Row Crops) | 11.27 |
| Tobacco (Row Crops) | 11.12 |
| Wheat (Close-Grown Cropland) | 3.43 |
| Other Vegetable and Truck Crop | 5.48 |
| Other Cropland not Planted | 19.23 |
| Conservation Reserve Program Lands | 0.27 |
| Farmsteads and Ranch Headquarters | 0.22 |

Table 4-75. Annual Estimated Total Soil Loss in Subwatershed 051100020801.

4.2.D.ii. 051100020802 (Little Trammel Creek).

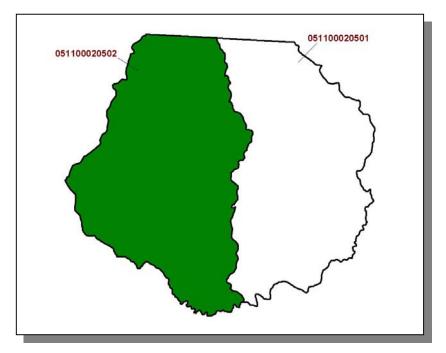


Figure 4-88. Location of Subwatershed 051100020802. All Barren River HUC-12 subwatershed boundaries are shown for reference.

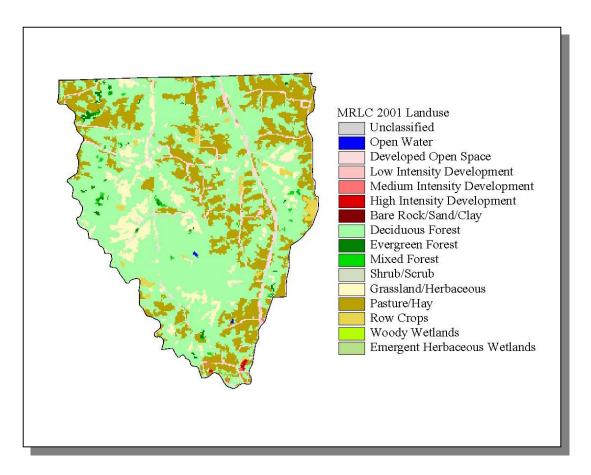


Figure 4-89. Illustration of Land Use Distribution in Subwatershed 051100020802.

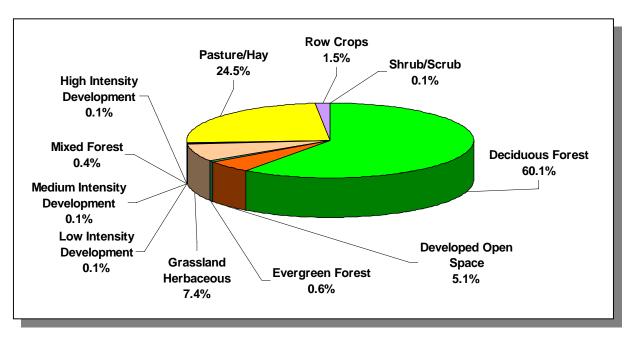


Figure 4-90. Land Use Distribution in Subwatershed 051100020802. More information is provided in Appendix IV.

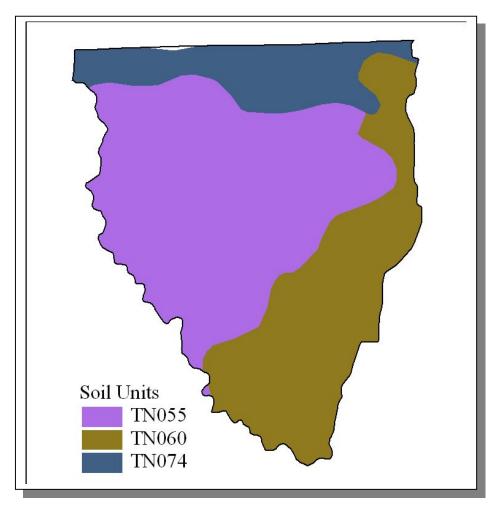


Figure 4-91. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051100020802.

| STATSGO MAP UNIT ID | PERCENT HYDRIC | HYDROLOGIC GROUP | PERMEABILITY (in/hour) | SOIL pH | ESTIMATED SOIL TEXTURE | SOIL ERODIBILITY |
|------------------------|-------------------|---------------------|---------------------------|------------|------------------------|---------------------|
| TN055 | 3.00 | С | 0.17 | 5.24 | Loam | 0.34 |
| TN060 | 5.00 | В | 0.19 | 5.32 | Silty Loam | 0.39 |
| TN074 | 7.00 | В | 0.17 | 4.94 | Loam | 0.33 |

Table 4-76. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051100020802. The definition of "Hydrologic Group" is provided in Appendix IV.

99

| | COUNTY POPULATION | | | | | ATED POP WATERS | | |
|--------|----------------------|---------|--------------------------|------|-------|--------------------|-------------------------|------|
| County | 1990 1997 2000 | | Portion of Watershed (%) | 1990 | 1997 | 2000 | % Change (1990-2000) | |
| | | | | | | | | |
| Sumner | 103,281 | 121,936 | 130,449 | 3.21 | 3,316 | 3,915 | 4,188 | 26.3 |

Table 4-77. Population Estimates in Subwatershed 051100020802.

| | | | NUMBER OF HOUSING UNITS | | | | |
|-----------------|--------|------------|-------------------------|--------------|-------------|-------|--|
| Populated Place | County | Population | Total | Public Sewer | Septic Tank | Other | |
| | | | | | | | |
| Westmoreland | Sumner | 1,726 | 709 | 625 | 82 | 2 | |

Table 4-78. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051100020802.

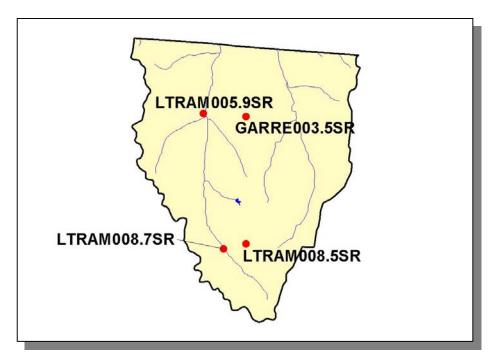


Figure 4-92. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051100020802. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.D.ii.a. Point Source Contributions.

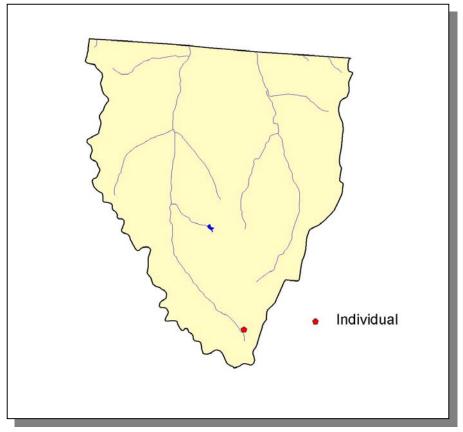


Figure 4-93. Location of Permits Issued in Subwatershed 051100020802. More information, including the names of facilities, is provided in Appendix IV.

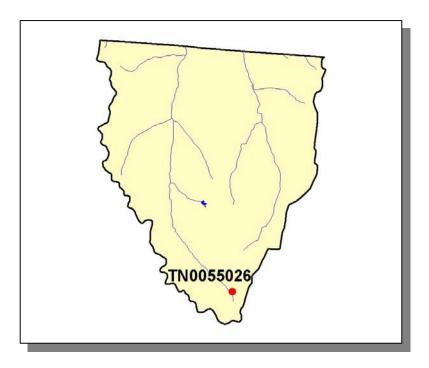


Figure 4-94. Location of Active NPDES Sites in Subwatershed 051100020802. More information, including the names of facilities, is provided in Appendix IV.

4.2.D.ii.b. Nonpoint Source Contributions.

| | LIVESTOCK COUNTS | | | | | | | |
|----------|------------------|----------|-------------------|------|-------|--|--|--|
| Beef Cow | Cattle | Milk Cow | Chickens (Layers) | Hogs | Sheep | | | |
| | | | | | | | | |
| 823 | 1,664 | 56 | <5 | 92 | 7 | | | |

Table 4-79. Summary of Livestock Count Estimates in Subwatershed 051100020802.According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

| LIVESTOCK COUNTS | | | | | | | |
|------------------|----------|--------|----------|-------------------|-------|-------|--|
| County | Beef Cow | Cattle | Milk Cow | Chickens (Layers) | Hogs | Sheep | |
| | | | | | | | |
| Sumner | 22,296 | 45,116 | 1,515 | 50 | 2,500 | 189 | |

Table 4-80. Summary of Livestock Count Estimates in Sumner County. According to the 1997 Census of Agriculture (http://www.nass.usda.gov/census/), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

| | INVEN | ITORY | REMOVAL RATE | | | |
|--------|------------------------------|------------------------------|------------------------------------|--------------------------------|--|--|
| County | Forest Land (thousand acres) | Timber Land (thousand acres) | Growing Stock (million cubic feet) | Sawtimber (million board feet) | | |
| | | | | | | |
| Sumner | 88.2 | 88.2 | 2 | 6.3 | | |

Table 4-81. Forest Acreage and Annual Removal Rates (1987-1994) in Sumner County.

| CROPS | TONS/ACRE/YEAR |
|---------------------------------------|----------------|
| Grass (Pastureland) | 0.46 |
| Grass (Hayland) | 0.31 |
| Legumes (Hayland) | 0.12 |
| Legumes, Grass (Hayland) | 0.23 |
| Grass, Forbs, Legumes (Mixed Pasture) | 0.54 |
| Corn (Row Crops) | 12.32 |
| Soybeans (Row Crops) | 11.27 |
| Other Cropland not Planted | 19.23 |
| Conservation Reserve Program Lands | 0.26 |
| Farmsteads and Ranch Headquarters | 0.34 |

Table 4-82. Annual Estimated Total Soil Loss in Subwatershed 051100020802.

4.2.D.ii.a.i. Dischargers to Water Bodies Listed on the 2004 303(d) List

There is one NPDES facility discharging to water bodies listed on the 2004 303(d) list in Subwatershed 051100020802:

TN0055026 (Westmoreland STP) discharges to Little Trammel Creek
 @ RM 9.9

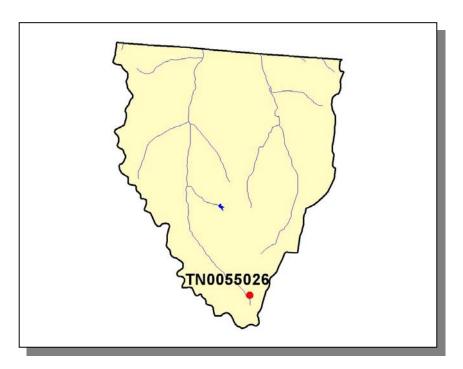


Figure 4-95. Location of NPDES Dischargers to Water Bodies Listed on the 2004 303(d) List in Subwatershed 051100020802. More information, including the names of facilities, is provided in Appendix IV.

DRAFT

| PERMIT # | 1Q10 | 3Q10 | 7Q10 | 3Q20 | QDESIGN |
|-----------|------|------|------|------|---------|
| TN0055026 | | | | 0 | |

Table 4-83. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051100020802. Data are in million gallons per day (MGD). Data were obtained from the USGS publication Flow Duration and Low Flows of Tennessee Streams Through 1992 or from permit files.

| PERMIT # | Р | N | Cu | Pb | Ni | As | Cd | Se | Hg | Мо |
|-----------|---|---|----|----|----|----|----|----|----|----|
| TN0055026 | X | X | X | Χ | Χ | Χ | Χ | Χ | Χ | Х |

Table 4-84. Monitoring Requirements for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051100020802.

| PERMIT # | WET | CBOD ₅ | FECAL COLIFORM | NH ₃ | TRC | TSS | SETTLEABLE SOLIDS | DO | рН |
|-----------|-----|-------------------|-------------------|-----------------|-----|-----|----------------------|----|----|
| TN0055026 | Х | Х | Х | Х | Х | Х | Х | Х | X |

Table 4-85. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051100020802. WET, Whole Effluent Toxicity; CBOD₅, Carbonaceous Biochemical Oxygen Demand (5-Day); TRC, Total Residual Chlorine; TSS, Total Suspended Solids.